

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Alexei Sadovnikov

Application No.: New

Filed: Herewith

For: LOW DOPED BASE SPACER FOR  
REDUCTION OF EMITTER-BASE  
CAPACITANCE IN BIPOLAR  
TRANSISTORS WITH SELECTIVELY  
GROWN EPITAXIAL BASE

Group Art Unit: Unknown

Examiner: Unknown

**INFORMATION DISCLOSURE  
STATEMENT**

121 Spear Street, Suite 290  
San Francisco, CA 94105  
(415) 512-1312

Mail Stop PATENT APPLICATION  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited  
with the United States Postal Service as First Class Mail in an  
envelope, addressed to: Commissioner for Patents,  
Washington, DC 20231 on September 23, 2003.

STALLMAN &amp; POLLOCK LLP

Dated: 09/23/03By: 

Lana T. Brenner

Sir:

Applicant(s) submit(s) herewith patents, publications or other information [attached hereto and listed on the attached Form PTO-1449 (modified)] of which he is aware, which he believe(s) may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

This Information Disclosure Statement:

- (a) ☒ accompanies the new patent application submitted herewith. 37 CFR § 1.97(a).
- (b) ☐ is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491.
- (c) ☐ as far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits.
- (d) ☐ is filed after the first office action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is

known to the undersigned, prior to the mailing date of either a final rejection or a notice of allowance, whichever occurs first, and is accompanied by either the fee (\$180) set forth in 37 CFR § 1.17(p) or a certification as specified in 37 CFR § 1.97(e), as checked below.

- (e) ☐ is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and the Issue Fee has not been paid, and is accompanied by the fee (\$130) set forth in 37 CFR § 1.17(i)(1) and a certification as specified in 37 CFR § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the information disclosure statement.

[If either of boxes (d) or (e) is checked above, the following "certification" under 37 CFR § 1.97(e) may need to be completed.] The undersigned certifies that:

- (f) ☐ Each item of information contained in the information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- (g) ☐ No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this information disclosure statement.

A list of the patent(s) or publication(s) is set forth on the attached Form PTO-1449

(Modified).

A copy of the items on PTO-1449 (Modified) is supplied herewith:

- (h) ☐ each (i) ☒ none (j) ☐ only those listed below:

Those patent(s) or publication(s) which are marked with an asterisk (\*) in the attached form PTO-1449 (Modified) are not supplied because they were previously cited by or submitted to the Office in a prior application no. 09/885,462, filed June 20, 2001 and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

A concise explanation of relevance of the items listed on form PTO-1449 (Modified) is:

- (k) ☒ not given

- (l) ☐ given for each listed item  
(m) ☐ given for only non-English language listed item(s) [Required]  
(n) ☐ is in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references [copy attached].

The Examiner is reminded that a "concise explanation of the relevance" of the submitted items "may be nothing more than identification of the particular figure or paragraph of the patent or publication which has some relation to the claimed invention," MPEP § 609.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and MPEP § 609 and the Examiner is respectfully requested to consider the listed references.

Respectfully submitted,

STALLMAN & POLLOCK LLP

Dated: September 23, 2003

By: 

Michael J. Pollock  
Reg. No. 29,098

Attorneys for Applicant(s)

<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	<b>Docket Number (Optional)</b> <b>NSC1-H2610</b>	<b>Application Number</b> <b>New</b>
	<b>Applicant(s)</b> Alexei Sadovnikov	
	<b>Filing Date</b> <b>Herewith</b>	<b>Group Art Unit</b> <b>Unknown</b>

### U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	*AA	5,698,890	12/16/97	Sato	257	592	09/12/95
	*AB	2003/0001235 A1	01/02/03	Hashimoto	257	592	08/29/02
	*AC	5,494,836	02/27/96	Imai	437	31	06/02/95
	*AD	5,250,448	10/05/93	Hamasaki et al.	437	31	01/31/91
	*AE	5,016,075	05/14/91	Minato	357	35	10/16/89
	*AF	5,412,228	05/02/95	Baliga	257	133	02/10/94
	*AG	5,440,152	08/08/95	Yamazaki	257	197	11/28/94
	*AH	5,041,892	08/20/91	Yano et al.	357	34	05/14/90
	*AI	5,340,753	08/23/94	Bassous et al.	437	31	04/14/93
	*AJ	5,315,151	05/24/94	Hsieh et al.	257	592	02/22/93
	*AK	5,930,635	07/27/99	Bashir et al.	438	313	05/02/97
	*AL	6,346,453 B1	02/12/02	Kovacic et al.	438	312	01/27/00
	*AM	5,789,800	08/04/98	Kohno	257	588	01/17/97
	*AN	6,337,494 B1	01/08/02	Ryum et al.	257	197	08/21/98
	*AO	5,668,396	09/16/97	Sato	257	517	09/25/95

### FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	*AP	EP 1 139 408 A2	10/04/01	Europe	H01L	21/331	X	

### OTHER DOCUMENTS

*(Including Author, Title, Date, Pertinent Pages, Etc.)*

	*AQ	A. Schuppen et al. "Enhanced SiGe Heterojunction Bipolar Transistors with 160 GHz- $f_{max}$ ", IEDM 95 743-746, 1995 IEEE.
	*AR	Denny D. Tang, "A Reduced-Field Design Concept for High-Performance Bipolar Transistors", IEEE Electron Device Letters, Vol. 10, No. 2, February 1989, pp 67-69.

<b>Examiner</b>	<b>Date Considered</b>
<b>Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</b>	